

Kellie Martinec

From: Jim Bolander <Jim_Bolander@SWN.COM>
Sent: Tuesday, March 19, 2013 3:28 PM
To: rulescoordinator
Subject: Comments on Revised Proposed Rule 3.13 to Clarify Requirements for Drilling, Casing, Cementing and Fracture Stimulation
Attachments: TX Rule 3.13 comments_signed.pdf

Dear Rules Coordinator,

Attached please find comments provided by Southwestern Energy on the proposed rule.

Regards,

James L Bolander
Senior Vice President - Resource Development



2350 N. Sam Houston Pkwy. E., Suite 125
Houston, Texas 77032
Tel: 281.618.4789
Fax: 281.618.7520
Email: jbolander@swn.com

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system. Thank you!

March 20, 2013

Rules Coordinator
Railroad Commission of Texas
Office of General Counsel
P.O. Drawer 12967
Austin, TX 78711-2967

Re: Comments on Revised Proposed Rule 3.13 to Clarify Requirements for Drilling, Casing, Cementing and Fracture Stimulation

Dear Commissioners and Staff:

Southwestern Energy commends the Railroad Commission for addressing well integrity improvements in the proposed rule. The purpose of this letter is to provide our comments on the Rule, and we welcome this opportunity to do so. Our comments are offered solely in the spirit of improving the Rule from an operational perspective, and are set forth below.

§ 3.13 Casing, Cementing, Drilling, Well Control and Completion Requirements

- a) (a)(3) Wellbore diameters - The rule requires that diameter of the wellbore in which surface casing will be set and cemented shall be at least one and one-half (1.5") greater than nominal outside diameter of casing to be installed and for subsequent casing strings, the diameter of the wellbore shall be at least one (1") greater than the nominal outside diameter of the casing installed.

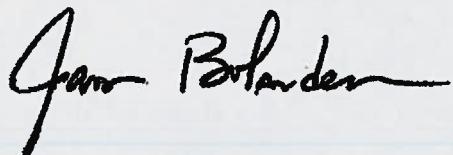
Southwestern Energy recommends that for all casing strings the wellbore diameter shall be at least two (2") greater than the nominal outside diameter of casing to be installed and cemented. Multiple sources¹ indicate that a one (1") minimum annular clearance is recommended to achieve proper mud removal, proper cement placement and set time and improved cement log interpretation, if utilized. An exception to the one (1") annular clearance must achieve the performance standards as outlined above.

- b) (a)(4)(C) & (D) -- Casing and cementing -- The rule requires various top of cement based on method of determination (Calculation = 600' / Temperature Survey = 250' / Cement Evaluation Log = 100') above all productive zones, potential flow zones and/or zones with corrosive formation fluids.

Southwestern Energy recommends clarification of language in the current draft to specify that the top of cement for each method be determined at the point in time in which each method is performed (post-cementing and/or post-survey/log). In addition, it is recommended that if the criteria distances are not met, the operator must submit the information to the district director for approval of future operations.

Again, thank you for the opportunity to comment on these rules changes. If you have any questions about our comments please feel free to call on us.

Sincerely,



James L Bolander

Senior Vice President - Resource Development



2350 N. Sam Houston Pkwy. E., Suite 125

Houston, Texas 77032

Tel: 281.618.4789

Fax: 281.618.7520

Email: lbolander@swn.com

cc: Mark Boling

¹ IIseng, J.R., Hoskins, L.R., Matthews, H.L., et al. 2005. Should Horizontal Sections Be Cemented and How to Maximize Value. Paper SPE 94288 presented at the SPE Production Operations Symposium, Oklahoma City, Oklahoma, 16-19 April.

Bols, A., Tec, C., Garnier, A, et al. 2012. Use of a Mechanistic Model to Forecast Cement-Sheath Integrity. *SPE Drill & Compl* 27 (2): 303-314. SPE-139668-PA.

Nelson, Ersk B. 1990. "Well Cementing". Dowell-Schlumberger TSL – 4135/ICN - 015572000; Chapter 15, 15-12.

Crook, Ron. 2008. Eight Ways to Help Ensure a Successful Cement Job.

www.halliburton.com/customer/cem/contents/Papers_Articles

Hunter, B., Ravi, K., Kulafofsky, D. 2008. Three Key Mechanisms Deliver Zonal Isolation. IADC http://www.halliburton.com/premium/cem/contents/Papers_and_Articles/web/P_through_Z/Zonal_Isolation.pdf

Tahmourpour, F. Griffith, J. 2008. Heavy Oil Cementing Best Practices for Long-Lasting Zonal Isolation. Paper 2008-305 presented at World Heavy Oil Congress, Edmonton, 10-12 March

Fallahzadeh, S.H. and Rasouli, V. 2012. The impact of cement sheath mechanical properties on near wellbore hydraulic fracture initiation. Paper ISRM EUROCK-2012-100 presented at the ISRM International Symposium - EUROCK 2012, Stockholm, Sweden, 28-30 May.